

text of 642 pages is used in the discussion of these three diseases alone.

The history of each disease has been carefully reviewed by the authors, and forms the introduction of each contribution. Among the diseases treated other than the above are chicken-pox, measles, rubella, and typhus fever.

The subject-matter is comprehensive, easily readable, and not confused. The treatment of the many complications of each disease is gone into in detail, and will prove especially welcome to the general practitioner.

The illustrations are profuse and very commendable, in several instances series of photographs show the successive stages of the various diseases, and also those with which they might be confounded,

JAMES TAFT PILCHER.

UNTERSUCHUNGEN UEBER KNOCHEN ARTERIEN mittelst Röntgen Aufnahmen injizierter Knochen und ihre Bedeutung für einzelne pathologische Vorgänge am Knochensysteme. Von Prof. Dr. E. LEXER und Dr. KULIGER und Dr. WOLFG. TURK, Volontär-Assistenten der Königlichen Chirurgischen Universität's Klinik Sr. Excellenz. von Bergmann, Berlin, Mit 22 Stereoscopischen Bilder, u. 3 Tafeln. Berlin: August Hirschwald, 1904.

The funds of Countess Bose were used to defray the expenses of the costly experiments, the valuable results of which are presented us in this monograph.

The blood was first washed out of the bones by the injection of physiological salt solution into the carotids, and this followed up by the injection of mercury rubbed up with turpentine. In adults the injections were made successively into the main artery of each extremity. The injection of the plexus of the blood-vessels of the periosteum and joint capsules was so dense in the radiographs taken as to obscure the arrangement of blood-vessels in

the interior of the bone. All radiographs were taken from bones stripped of periosteum and capsule. The bones of young infants and children were best adapted to show in radiographs that there are three areas of vascularization,—the zone of the diaphysis, that of the epiphysis, and that of the metaphysis.

Then follows a detailed account of the distribution of these vessels in the long and short bones, illustrated in twenty-two stereoscopic radiographs printed on diaphanous paper so as to permit their being viewed in an American stereoscope.

Two concluding paragraphs show to what extent the localization of disease in distinct foci of bone is due solely to embolism, or rather the mechanical conditions of the arterial system.

Senile changes of bones are also to be explained by such retrograde changes that affect the blood-vessels of the diaphysis, so that greater vascularity is peculiar to the epiphyses. We have therefore in old age, as well as infancy, greater vascularity as potent factors of disease.

This research is limited to physiological conditions of the bone; there yet remains to investigate with the X-rays pathological specimens of bone injected with mercury. One such radiograph of a sarcoma of the shoulder is added.

MARTIN W. WARE.

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#### TO CONTRIBUTORS AND SUBSCRIBERS.

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